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April 6, 2012

State of Delaware, DNREC
Site Investigation & Restoration Section
Attn: John G. Cargill, IV, P.G.
391 Lukens Drive
New Castle, DE 19720

RECEIVED

APR 11 2012

SIRB

RE: Response to SIRS Comments on TBE Revised Work Plan / SAP Plan
Procino Plating Facility (DE-0344)
Blades, Sussex County, Delaware
P.N. 11-1027.A

Mr. Cargill:

Thank you for your letter dated April 2, 2012 providing prompt review of Ten Bears Environmental's Revised Work Plan for the referenced facility.

The purpose of this correspondence is to provide responses to the questions and issues you raised in your letter. Your comments are reproduced below, each of which is followed by Ten Bears Environmental's response.

Page 2 - Onsite Groundwater Section - as indicated in our March 1, 2012 meeting, the detected Dieldrin above screening levels in groundwater at the site will need to be addressed at some point during the Remedial Investigation. The assertion that the compound was detected in two upgradient wells does not necessarily indicate an offsite source, especially since the groundwater flow direction determined by DNREC is being scrutinized. Confirmation of the groundwater flow direction is necessary before this hypothesis can be tested.

TBE RESPONSE: Once the well measurements have confirmed the direction of groundwater flow, the Dieldrin occurrence will be addressed and evaluated if necessary.

Page 2 - Item # 3 - Please confirm the assumption that the "low-flow" sampling technique proposed will be accomplished through the use of a peristaltic pump. In addition, and to confirm a likely assumption by Ten Bears, DNREC set its sample tubing to within one foot of the bottom of the screen when sampling all site monitoring wells during the Site Inspection (SI).

TBE RESPONSE: Yes, all monitor well samples will be collected using EPA's Low Flow method using a peristaltic pump.

Page 2 – Item # 4 – Please provide more detailed information regarding how the former water supply well will be sampled. Is it known whether the well is a 2-inch diameter or 4-inch diameter? According to Pat Procino, the well is 1.5-inch diameter steel well, which appears to be a driven well point. It will be sampled using the Low Flow method by lowering tubing down the well bore, as the pump has been disconnected.

Can it be confirmed that there is 10 feet of screen in the well? No screen is evident and there is no well log on file with DNREC or DGS. Driven well points typically had 3 to 4 ft of wire mesh screen covered with a larger-opening mesh. It may or may not be clogged with iron at this point in time.

DNREC assumes that the well will have a pump installed which may interfere with the sampling. Will the old pump be removed prior to sampling? No pump is present. There used to be a pump installed in the basement which formerly was used for that well, but it has been disconnected and removed.

Since the well is not a 1-inch diameter monitoring well, will a peristaltic or Grundfos™ type submersible pump be used for the sampling? If this well is old, there may be a significant amount of stagnant water in the well casing. Removal of a pump will likely mix the stagnant water above the screen with the groundwater in the screened portion of the well. For this reason, will Ten Bears still utilize a low flow sampling technique, or evacuate well volumes to remove the stagnant water?

TBE RESPONSE: We will use the peristaltic pump and dedicated tubing, lowered to 3 feet from the bottom to reduce entrainment of settled bottom sediment, to evacuate 3 well volumes due to the stagnant standing water. The well will then be sampled using the Low Flow sampling method after recovery.

Page 2, Item # 4 – Because the former water supply well is deeper than the DNREC SI wells, it is requested that the groundwater samples be analyzed for TAL metals and cyanide with either method 9012A or 335.4 (distillation methods).

TBE RESPONSE: Agreed.

Page 2-3, Item # 5 – Please indicate in the work plan how the monitoring wells will be installed and constructed. Will soil coring or split spoons be used to determine where the first clay layer is encountered? Please note from the DNREC SI that soil coring was conducted at all site monitoring well locations to a depth of 20 feet below ground surface. In the closest well locations to the three proposed wells, a significant clay layer was not identified above the 20 foot depth.

TBE RESPONSE: The monitor wells will be installed inside of Direct Push continuous soil borings made using a 2-inch diameter macrocore sampler. TBE is aware of the absence of encountered clay at depths above 20 feet in DNREC's SI borings. However, clay was described in the base of both MW-4 and MW-6 at depths of 20 ft. We plan to proceed with care below 20 feet depth and penetrate the clay to determine its thickness, then backfill the

boring with grout or pelletized bentonite up to the top of the clay unit before installing the basal screen of the pre-packed monitor well.

Page 3, Item # 5 – Because the three wells will be screened deeper than the DNREC-SI wells, it is requested that the groundwater samples be analyzed for TAL metals and cyanide with either method 9012A or 335.4 (distillation methods).

TBE RESPONSE: Agreed.

Additional Request – Recent review of DNRECs Solid and Hazardous Waste Management Branch records indicates that there used to be a large inventory of chemicals and plating solutions stored throughout the inside of the buildings that contained chromium and cyanide based solutions, among other metals based solutions. Since floor drains are the most logical pathway for these compounds to enter the subsurface if any leaking or spilling occurred from this inventory in the past, and in an attempt to rule out other potential contaminants, source areas, and pathways, DNREC-SIRS requests that water samples be collected from each of the floor drains identified inside the site buildings. DNREC-SIRS requests that the samples be analyzed for TAL metals and cyanide with either method 9012A or 335.4.

TBE RESPONSE: No floor drains are currently present in the building. A former network of floor drains which lead to the onsite water treatment system was permanently sealed in accordance with Sussex County as part of the discontinuation of the onsite system. The absence of floor drains is why the owners proceeded to core the holes through the slab that TBE will access to collect the delineation soil samples requested by DNREC.

General Comment – The January 2012 work plan contained details regarding chromium speciation. During our March 1, 2012 meeting, chromium speciation was discussed, but not ruled out. Speciation is not included in the revised work plan. Please provide rationale for omitting this item.

TBE RESPONSE: Prior to the March 1 2012 meeting, Ten Bears believed that, due to the absence of drinking water receptors, that the groundwater would not be considered as a source of drinking water, therefore was not subject to meeting the Primary Drinking Water MCLs. However, based on the meeting discussion, DNREC will regulate chromium in groundwater using the MCL, which is for total Chromium. As a result, there is no data quality objective to be met by the collection of the chromium species data.

General Comment – Aside from verifying groundwater flow direction first, is there any planned sequencing of the proposed data collection, as discussed during the March 1, 2012 meeting? If so, please indicate this in more detail in the work plan.

TBE RESPONSE: Three site visits are planned; the exact dates will depend upon drilling subcontractor availability.

1. Visit 1: Well TOC survey and soil sample collection. Within 1 week of Work Plan approval by DNREC SIRS.

2. Visit 2: Well Installation / Development. Pending driller availability.

3. Visit 3: Well sampling 1 week after Visit #2.

Summary lab results will be available within 10 working days of groundwater sample submission.

Section 1 - Soil Sampling – It is not indicated whether the DNREC-SIRS screening lab will be used to screen the soil samples. In addition, please indicate the sample analytical methods that will be used.

TBE RESPONSE: The soil samples will be conveyed under Chain of Custody to Lancaster Labs for analysis of total Chromium in soils using method SW-846 6010B modified.

Section 2 - Groundwater Monitoring Wells - Please indicate the analytical methods that will be used for the chromium and cyanide samples.

TBE RESPONSE: The groundwater samples will be conveyed under Chain of Custody to Lancaster Labs for analysis of total Chromium as part of the TAL (method SW-846 6010B modified) and total cyanides in water/wastewater using SW-846 9012A as requested.

• Section 4 – Health and Safety Plan – Ten Bears must generate a Health and Safety Plan (HASP) that is specific to their employees. It is acceptable to use DNREC-SIRS's HASP as a template for general information, but it cannot be adopted for use as-is.

In addition, please submit a HASP prepared specifically for Ten Bears personnel with the final draft of the work plan. Also, DNREC-SIRS requests a schedule, once developed, of sampling activities, as splits of the groundwater samples from newly installed monitoring wells and floor drain samples may be collected for independent analysis.

TBE RESPONSE: Agreed. TBE will generate a site-specific HASP and submit a copy to DNREC SIRS prior to field work. As soon as a well installation date is available from our drilling subcontractor, TBE will provide it to DNREC SIRS so that they may participate in, or provide oversight of, the field sample collection.

If you have any questions regarding the above information, please contact us.

Sincerely,

TEN BEARS ENVIRONMENTAL, L.L.C.

Ex. 4 CBI

Senior Geologist

Ex. 4 CBI

Manager

Cargill IV John G. (DNREC)

From: Cargill IV John G. (DNREC)
Sent: Wednesday, April 11, 2012 1:13 PM
To: **Ex. 4 CBI**
Cc: 'Mike Parkowski'; **Ex. 4 Personal Privacy (PP)**@comcast.net; 'Joe'; Salahuddin Qazi (DNREC)
Subject: RE: Response to DNREC Comments, Work Plan, Procino Plating Site (DE-0344)

Ex. 4 CBI

Thank you for addressing DNREC's comments and concerns related to the work plan for the Procino Plating site. Per our telephone conversation today, DNREC requests that Ten Bears update and submit the Work Plan/Sampling & Analysis Plan Table to include the clarifications addressed in your Response to DNREC Comments, along with an updated sample location figure, and your Health and Safety Plan.

I will put a copy of this email in the project file to indicate that DNREC accepts the provided clarifications and approves the work plan upon submittal of the above mentioned documents.

Thank you.

John

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From: **Ex. 4 CBI**@comcast.net]
Sent: Tuesday, April 10, 2012 12:47 PM
To: Cargill IV John G. (DNREC)
Cc: 'Mike Parkowski'; **Ex. 4 Personal Privacy (PP)**@comcast.net; 'Joe'
Subject: Response to DNREC Comments, Work Plan, Procino Plating Site (DE-0344)

John

Attached is a letter containing Ten Bears' responses to your comment letter dated April 2, 2012 for the work proposed at the Procino Plating Property.

We appreciate your review and look forward to starting field work upon your approval.

Please let us know if you have any further questions.

Regards,

Ex. 4 CBI

Ex. 4 CBI

Senior Geologist / Project Manager

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